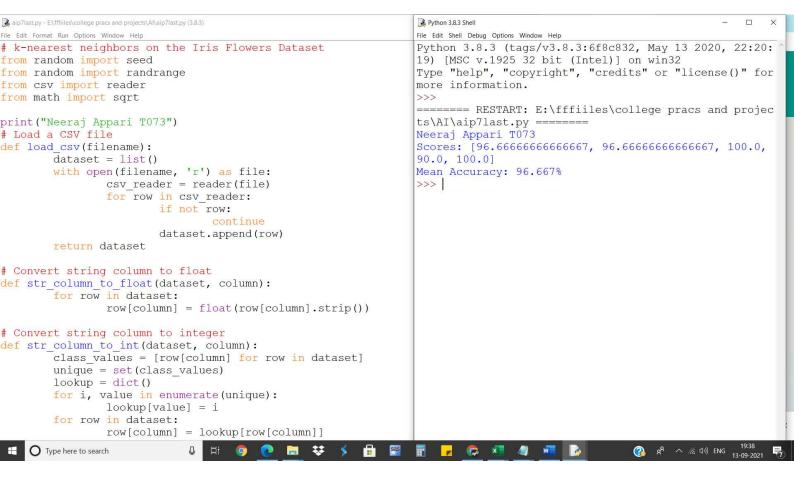
Neeraj Appan 7073 Appan SDS | Page No. Practical - 07 Aim-Write a program to implement KNN Algorithm load a CSV file Convert string rolam to float Convert string colum to integer find the nimmen a maximum value for each identil Rescale data set rolum to the large 6-Split on data set into Rbods. Colculate Accuracy Percentage. 9) Evaluate an algorithm using a cross validation pla 10) (coloulate the Eddidion distance between two vector locate the most similar tein neighbourg 12) Anake a prediction with reighted 12) Anake a prediction with reighted 13) CNN Algorithm testing the KANAT KNN on Ins Placer destaset 14) Shop.



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                                                                      Python 3.8.3 Shell
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                                                                      Python 3.8.3 (tags/v3.8.3:6f8c832, May 13 2020, 22:20:
def dataset_minmax(dataset):
        minmax = list()
                                                                      19) [MSC v.1925 32 bit (Intel)] on win32
                                                                      Type "help", "copyright", "credits" or "license()" for
        for i in range(len(dataset[0])):
                 col_values = [row[i] for row in dataset]
                                                                      more information.
                 value min = min(col values)
                                                                      >>>
                 value_max = max(col_values)
                                                                      ====== RESTART: E:\fffiiles\college pracs and projec
                 minmax.append([value_min, value_max])
                                                                      ts\AI\aip7last.py ======
        return minmax
                                                                      Neeraj Appari T073
                                                                      Scores: [96.66666666666667, 96.6666666666667, 100.0,
                                                                      90.0, 100.0]
# Rescale dataset columns to the range 0-1
def normalize_dataset(dataset, minmax):
                                                                      Mean Accuracy: 96.667%
        for row in dataset:
                                                                      >>>
                 for i in range(len(row)):
                          row[i] = (row[i] - minmax[i][0]) / (min)
# Split a dataset into k folds
def cross_validation_split(dataset, n_folds):
        dataset split = list()
        dataset_copy = list(dataset)
        fold_size = int(len(dataset) / n_folds)
        for _ in range(n_folds):
                 fold = list()
                 while len(fold) < fold_size:</pre>
                          index = randrange(len(dataset_copy))
                          fold.append(dataset_copy.pop(index))
                 dataset_split.append(fold)
        return dataset_split
# Calculate accuracy percentage
def accuracy_metric(actual, predicted):
        correct = 0
        for i in range(len(actual)):
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aip7last.py - E:\fffiiles\college pracs and projects\Al\aip7last.py (3.8.3)
                                                                         Python 3.8.3 Shell
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File Edit Format Run Options Window Help
                                                                         Python 3.8.3 (tags/v3.8.3:6f8c832, May 13 2020, 22
# Evaluate an algorithm using a cross validation split
                                                                         :20:19) [MSC v.1925 32 bit (Intel)] on win32
                                                                         Type "help", "copyright", "credits" or "license()"
def evaluate algorithm(dataset, algorithm, n folds, *args):
        folds = cross_validation_split(dataset, n_folds)
                                                                         for more information.
        scores = list()
        for fold in folds:
                                                                         ====== RESTART: E:\fffiiles\college pracs and pr
                 train_set = list(folds)
                                                                         ojects\AI\aip7last.py ======
                 train_set.remove(fold)
                                                                         Neeraj Appari T073
                                                                         Scores: [96.66666666666667, 96.6666666666667, 100
                 train_set = sum(train_set, [])
                 test set = list()
                                                                         .0, 90.0, 100.0]
                 for row in fold:
                                                                         Mean Accuracy: 96.667%
                          row copy = list(row)
                          test_set.append(row_copy)
                          row\_copy[-1] = None
                 predicted = algorithm(train_set, test_set, *args)
                 actual = [row[-1] for row in fold]
                 accuracy = accuracy_metric(actual, predicted)
                 scores.append (accuracy)
        return scores
# Calculate the Euclidean distance between two vectors
def euclidean_distance(row1, row2):
        distance = 0.0
        for i in range(len(row1)-1):
                 distance += (row1[i] - row2[i])**2
        return sqrt (distance)
# Locate the most similar neighbors
def get_neighbors(train, test_row, num_neighbors):
        distances = list()
        for train row in train:
                 dist = euclidean distance(test row, train row)
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